

# Work Order ID 138489

Wednesday, October 28, 2015 12:57:42 PM

**\*138489\***

Page 1

Item ID: D206-667-147TRN

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Crosstube Assembly, Mid Fwd

Start Date: 10/28/2015 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: MLJ Date: OCT 28 2015

Tooling:

Date:

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_

Date:

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr     | Revision Nbr |
|--------------|--------------|
| D206-667-147 | A            |

100

0.00

**\*100\***

MORI SEIKI CNC LATHE LARGE

Mori Seiki

Memo

0.02

Mori Seiki CNC Lathe Large

1-Fill tube with sand & install plugs DTxxxx on both ends as per Folio FB029  
2-Turn first side as per Folio FB029  
3-File down transition lines smooth.  
FOLIO REV: AA  
DWG REV: A

1-φ  
mm  
16/02/16

110

QC1 Inspection performed by CMM

0.00

**\*110\***

QC

QC2

Memo

0.00

Quality Control

516/01/13

1-φ  
mm  
16/02/17

Wednesday, October 28, 2015 12:57:42 PM

**\*138489\***

Page 2

**Accept.**

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 10/28/2015    **Start Qty:** 1.00    **\*1\***

**Cust Item ID:**

**Required Date:** 10/28/2015      **Req'd Qty:** 1.00      **\*1\***

**Customer:**

**Reference:**

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**QC:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **SPC (Y/N):** \_\_\_\_\_ **Date:** \_\_\_\_\_

|     |       |       |
|-----|-------|-------|
| Run | Start | *NR1* |
|     | Stop  | *NR2* |

[illegible]

**Work Order ID 138489**

Wednesday, October 28, 2015 12:57:42 PM

**\*138489\***

Page 3

Item ID: D206-667-147TRN

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Crosstube Assembly, Mid Fwd

Stop **\*NS2\***Start Date: 10/28/2015 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                                             | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|----------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 145                            |                                                                      | 0.00                 |         |        |              |               |               |                  |                |
| <b>*145*</b>                   |                                                                      |                      |         |        |              |               |               |                  |                |
| Crosstubes                     | Memo                                                                 | 0.01                 |         |        |              | BC            |               | 16/02/23         |                |
| Crosstubes                     | GRIND ONLY TRANSITION LINES SMOOTH LONGITUDE WAY.                    |                      |         |        |              |               |               |                  |                |
| 150                            |                                                                      | 0.00                 |         |        |              |               |               |                  |                |
| <b>*150*</b>                   |                                                                      |                      |         |        |              |               |               |                  |                |
| HandFXtube                     | Memo                                                                 | 0.01                 |         |        |              | BC            |               | 16/02/23         |                |
| Hand Finishing Crosstubes      | 1- PRESSURE WASH X-TUBE INSIDE AND OUT                               |                      |         |        |              |               |               |                  |                |
|                                | 2- ALODINE AND ACID ETCH X-TUBE INSIDE AND OUT. USE RED SCOTCH BRITE |                      |         |        |              |               |               |                  |                |
| 160                            | QC7-Inspect Chemical Conversion Coat                                 | 0.00                 |         |        |              |               |               |                  |                |
| <b>*160*</b>                   |                                                                      |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                                                 | 0.00                 |         |        |              | 1             |               |                  |                |
| Quality Control                |                                                                      |                      |         |        |              |               |               |                  |                |

DAS  
38  
9-89

FEB 23 2016

# Work Order ID 138489

Wednesday, October 28, 2015 12:57:42 PM

**\*138489\***

Page 4

Item ID: D206-667-147TRN Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Crosstube Assembly, Mid Fwd  
 Start Date: 10/28/2015 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 10/28/2015 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                    | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 170                            | Packaging                                   | 0.00                 |         |        |              |               |               |                  |                |
| <b>*170*</b>                   |                                             |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo                                        | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      | LOCATION : LG014                            |                      |         |        |              |               |               |                  |                |
| 180                            | QC21- Final Inspection - Work Order Release | 0.00                 |         |        |              |               |               |                  |                |
| <b>*180*</b>                   |                                             |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                        | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                             |                      |         |        |              |               |               |                  |                |

BL 16/02/23

MCJ FEB 24 2016

MCJ FEB 24 2016

# Picklist Print

Wednesday, October 28, 2015 12:57:46 PM

Page 1/

Work Order ID: 138489

**\*138489\***

Parent Item: D206-667-147TRN

**\*D206-667-147TRN\***

Parent Item Name: Crosstube Assembly, Mid Fwd

Start Date: 10/28/2015

Required Date: 10/28/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev:A 11.01.06 new issue DD verf:EC

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D6002-115                       |                        | Manufactured  | No          |                     |                  | 100             | Each               | 78.0000        | 1           | 1            |               |                |        |

**\*D6002-115\***

Crosstube Material

**\*\***

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| HALL            | 60             |                 |
| 107867          | 60             |                 |
| LG003           | 18             |                 |
| 69794           | 15             |                 |
| 75629           | 3              |                 |

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ 1 mml 16/02/16

\_\_\_\_\_

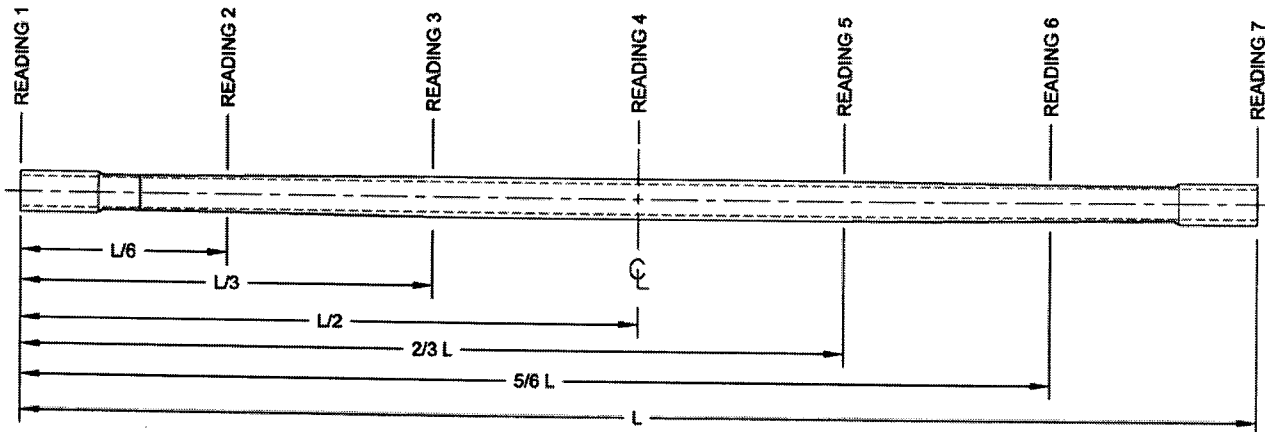
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|-------------------------------------------------|--|---------------------|--------------|
| <b>DART AEROSPACE LTD</b>                       |  | <b>Work Order:</b>  | 138489       |
| <b>Description:</b> Crosstube Assembly, Mid Fwd |  | <b>Part Number:</b> | D206-667-147 |
| <b>Inspection Dwg:</b> D206-667-147 Rev: A      |  | Page 1 of 2         |              |

### FIRST ARTICLE INSPECTION CHECKLIST

| Inspection Sheet<br>Drawing Dimension |        | Tolerance     | Actual<br>Dimension | Accept | Reject | Method of<br>Inspection | Comments |
|---------------------------------------|--------|---------------|---------------------|--------|--------|-------------------------|----------|
| SIDE A                                | 2.240  | +0.005/-0.000 | 2.243               | /      |        | vern                    | CNC-08   |
|                                       | 1.984  | +0.005/-0.000 | 1.987               | /      |        |                         |          |
|                                       | 2.019  | +0.005/-0.000 | 2.023               | /      |        |                         |          |
|                                       | 2.058  | +0.005/-0.000 | 2.063               | /      |        |                         |          |
|                                       | 2.097  | +0.005/-0.000 | 2.102               | /      |        |                         |          |
|                                       | 2.136  | +0.005/-0.000 | 2.139               | /      |        |                         |          |
|                                       | 2.176  | +0.005/-0.000 | 2.178               | /      |        |                         |          |
|                                       |        |               |                     |        |        |                         |          |
|                                       | 0.125  | +/-0.010      | .125                | /      |        | vern                    | CNC-08   |
|                                       | R0.063 | +/-0.010      | .063                | /      |        | R6                      |          |
|                                       | R2.00  | +/-0.010      | 2.00                | /      |        | "                       |          |
|                                       | R0.063 | +/-0.010      | .063                | /      |        | "                       |          |
|                                       | 4.438  | +/-0.030      | 4.440               | /      |        | vern                    | CNC-08   |
|                                       |        |               |                     |        |        |                         |          |
|                                       |        |               |                     |        |        |                         |          |
| SIDE B                                | 2.240  | +0.005/-0.000 | 2.242               | /      |        | vern                    | CNC-08   |
|                                       | 1.984  | +0.005/-0.000 | 1.987               | /      |        |                         |          |
|                                       | 2.019  | +0.005/-0.000 | 2.022               | /      |        |                         |          |
|                                       | 2.058  | +0.005/-0.000 | 2.062               | /      |        |                         |          |
|                                       | 2.097  | +0.005/-0.000 | 2.101               | /      |        |                         |          |
|                                       | 2.136  | +0.005/-0.000 | 2.138               | /      |        |                         |          |
|                                       | 2.176  | +0.005/-0.000 | 2.178               | /      |        |                         |          |
|                                       |        |               |                     |        |        |                         |          |
|                                       | 0.125  | +/-0.010      | .125                | /      |        | vern                    | CNC-08   |
|                                       | R0.063 | +/-0.010      | .063                | /      |        | R6                      |          |
|                                       | R2.00  | +/-0.010      | 2.00                | /      |        | "                       |          |
|                                       | R0.063 | +/-0.010      | .063                | /      |        | "                       |          |
|                                       | 4.438  | +/-0.030      | 4.440               | /      |        | vern                    | CNC-08   |
|                                       |        |               |                     |        |        |                         |          |
|                                       |        |               |                     |        |        |                         |          |
|                                       | 99.84  | +/-0.020      | 99.84               | /      |        | tape                    |          |

|                                          |  |              |              |
|------------------------------------------|--|--------------|--------------|
| DART AEROSPACE LTD                       |  | Work Order:  | 138489       |
| Description: Crosstube Assembly, Mid Fwd |  | Part Number: | D206-667-147 |
| Inspection Dwg: D206-667-147 Rev: A      |  | Page 2 of 2  |              |

### WALL THICKNESS MEASUREMENT



| Location           | WALL THICKNESS MEASUREMENT (IN) |      |      |      | Deviation<br>$\Delta w$<br>(max-min) | TOLERANCE |
|--------------------|---------------------------------|------|------|------|--------------------------------------|-----------|
|                    | w1                              | w2   | w3   | w4   |                                      |           |
| READING 1<br>L= 0" | .246                            | .259 | .260 | .251 | .014                                 | 0.035"    |
| READING 2<br>L= 17 | .169                            | .180 | .175 | .165 | .015                                 |           |
| READING 3<br>L= 33 | .246                            | .249 | .246 | .244 | .005                                 |           |
| READING 4<br>L= 50 | .255                            | .259 | .258 | .251 | .005                                 |           |
| READING 5<br>L= 67 | .243                            | .244 | .246 | .245 | .003                                 |           |
| READING 6<br>L= 83 | .172                            | .166 | .176 | .178 | .012                                 |           |
| READING 7<br>L= 99 | .253                            | .258 | .256 | .249 | .009                                 |           |

#### Calibration Result

Actual Block Thickness: 100 - 30

SITESCAN 250 Measured Thickness: 100 - 30

**DAS  
47**

|              |            |
|--------------|------------|
| Measured by: | <i>mmf</i> |
| Date:        | 16/02/17   |

|             |          |
|-------------|----------|
| Audited by: | 9-89     |
| Date:       | 16-02-17 |

|                       |  |
|-----------------------|--|
| Preliminary Approval: |  |
| Date:                 |  |

| Rev | Date     | Change                    | Revised by | Approved |
|-----|----------|---------------------------|------------|----------|
| B   | 11.06.21 | New Issue                 | KJ         |          |
| C   | 12.06.04 | Wall thickness form added | KJ         |          |

| Item | Qty<br>-147 | Part Number    | Description                                                                                                    |
|------|-------------|----------------|----------------------------------------------------------------------------------------------------------------|
| 1    | X           | D206-667-147   | CROSSTUBE ASSEMBLY (206L MID FWD)                                                                              |
| 2    | 1           | D6002-115      | CROSSTUBE                                                                                                      |
| 3    | 2           | D2873-043      | NUT PLATE                                                                                                      |
| 4    | 2           | D2873-045      | NUT PLATE                                                                                                      |
| 5    | 2           | D2891-1        | SUPPORT                                                                                                        |
| 6    | 4           | D3595-063-395  | RUBBER CUSHION                                                                                                 |
| 7    | 4           | MS21920-20     | CLAMP (OR MS21920-21)                                                                                          |
| 8    | 14          | MS20601AD4W8   | RIVET (OR NAS9302B-4-8)                                                                                        |
| 9    | A/R         | MAGNOBOND 6398 | ROCKWELL SPECIFICATION RBO-120-023<br>ADHESIVE (TEXTROM/BELL SPEC. 299-<br>947-100, TYPE II, CLASS 2 ADHESIVE) |

**GENERAL NOTES:**

- 1) MATERIAL: MANUFACTURED FROM D6002-115  
FINISHED LENGTH = 99.84±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-147" AND BATCH NUMBER ON  
INSIDE OF CUFF PER DART QSI 044 6.4 (VIBRATING STYLUS).
- 7) WEIGHT: 15.0 lbs (-507 = 12.84)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY,  
TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE  
TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI  
015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE  
THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS  
ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE  
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS  
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT  
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN  
SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE

WORK ORDER

NO. 138489 ML5

157028

DEO ATTACHED

EQ #11-615  
11.07.28

UNDER REVIEW

RELEASED  
2011-05-23  
NW

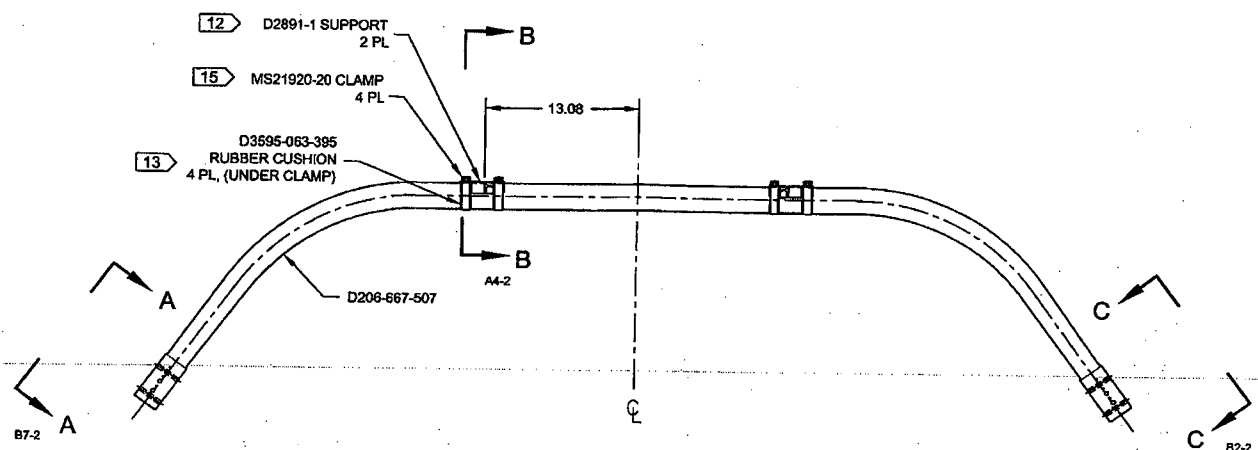
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| A          | NEW ISSUE   | CP | 10.11.23 |
| REV.       | DESCRIPTION | BY | DATE     |
| DESIGN     |             |    |          |
| DRAWN      |             |    |          |
| CHECKED    |             |    |          |
| MFG. APPR. |             |    |          |
| APPROVED   |             |    |          |
| DE APPR.   |             |    |          |
| DATE       | 10.12.23    |    |          |

|                                                   |                        |
|---------------------------------------------------|------------------------|
| DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |                        |
| DRAWING NO.<br>D206-667-147                       | REV. A<br>SHEET 1 OF 4 |
| TITLE<br>CROSSTUBE ASS'Y (206L MID FWD)           | SCALE<br>NTS           |

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8 7 6 5 4 3 2 1

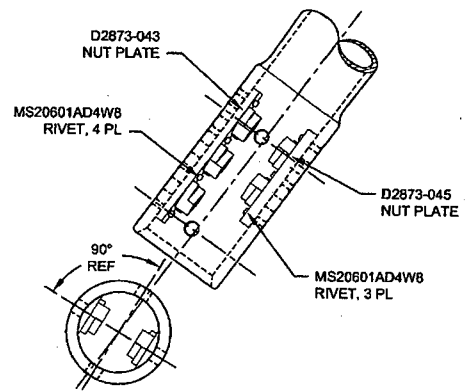


**D206-667-147**  
**ASSEMBLY DETAIL**  
(VIEW LOOKING FWD)

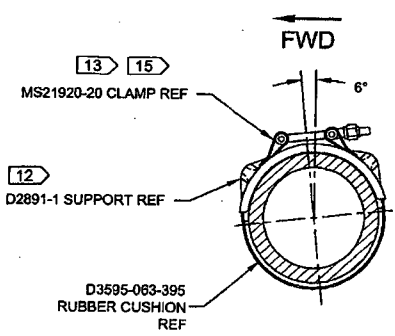
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11/06/13

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2011-05-24

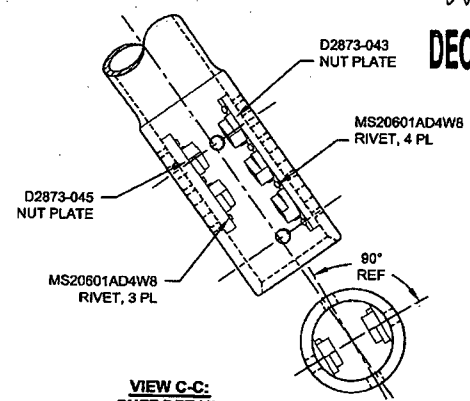
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**VIEW A-A:**  
**CUFF DETAIL**  
SCALE 4X



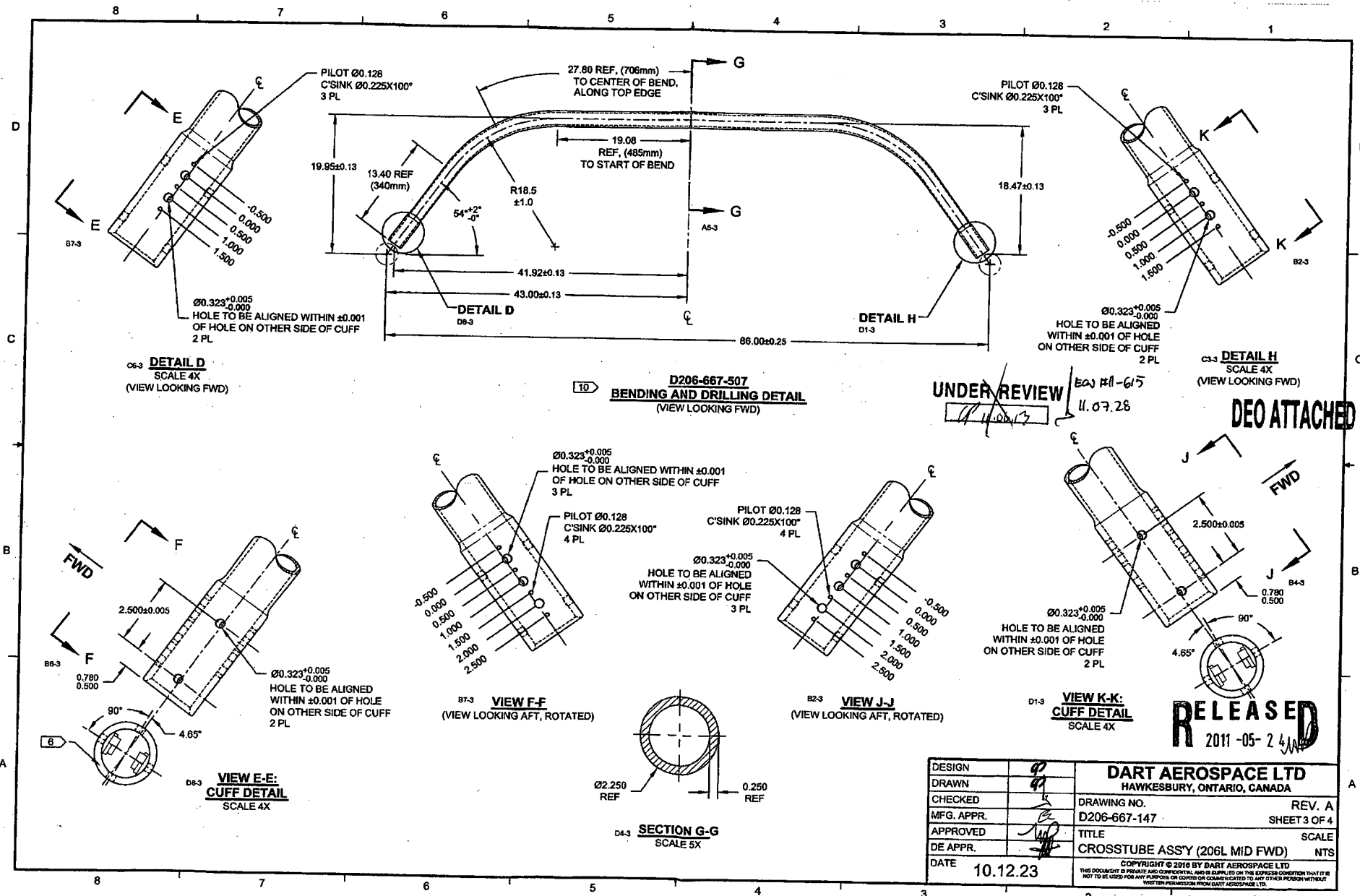
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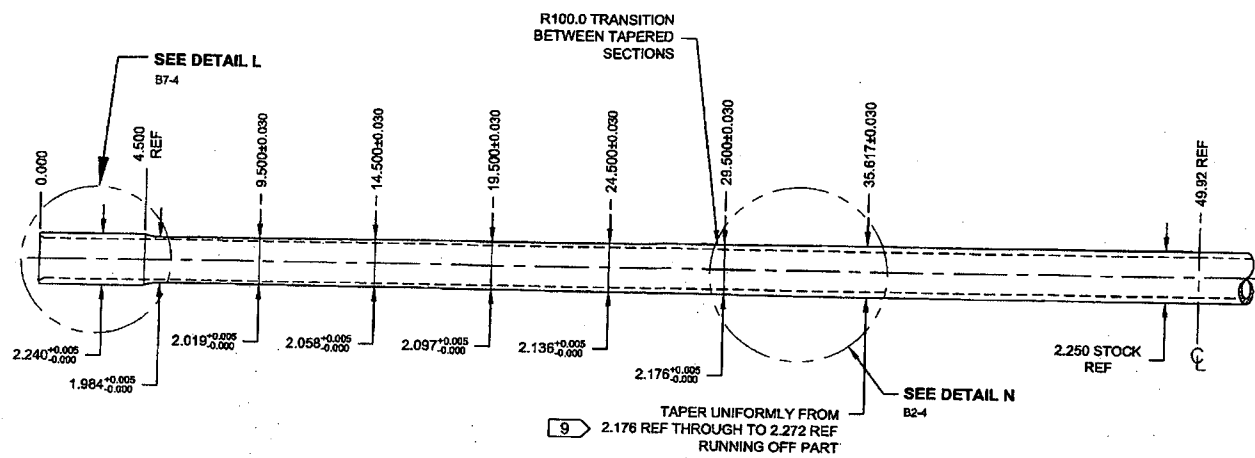
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**CUFF DETAIL**  
SCALE 4X

|            |          |                                                                                                                                                                                                                                                                  |              |
|------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     |          | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                        |              |
| DRAWN      |          | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                      |              |
| CHECKED    |          | DRAWING NO.                                                                                                                                                                                                                                                      | REV. A       |
| MFG. APPR. |          | D206-667-147                                                                                                                                                                                                                                                     | SHEET 2 OF 4 |
| APPROVED   |          | TITLE                                                                                                                                                                                                                                                            | SCALE        |
| DE APPR.   |          | CROSSTUBE ASS'Y (206L MID FWD)                                                                                                                                                                                                                                   | NTS          |
| DATE       | 10.12.23 | COPYRIGHT © 2010 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESSED CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. |              |

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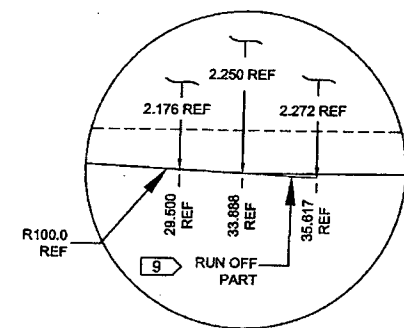
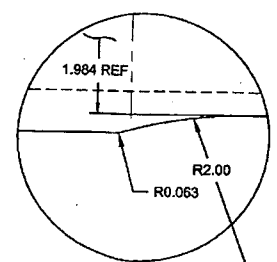
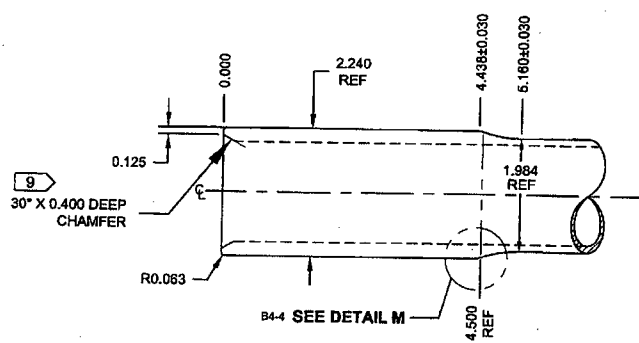


8 7 6 5 4 3 2 1



**UNDER REVIEW**  
UP 11.06.13  
SCN # 11-615  
11.07.20

**TURNING DETAIL**



**DEO ATTACHED**

**RELEASED**  
2011-05-23

|            |          |                                                                                                                                                                                                                                                                 |              |
|------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | 90       | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                        |              |
| DRAWN      | 91       |                                                                                                                                                                                                                                                                 |              |
| CHECKED    |          | DRAWING NO.                                                                                                                                                                                                                                                     | REV. A       |
| MFG. APPR. | 13       | D206-667-147                                                                                                                                                                                                                                                    | SHEET 4 OF 4 |
| APPROVED   | 10       | TITLE                                                                                                                                                                                                                                                           | SCALE        |
| DE APPR.   | 10       | CROSSTUBE ASS'Y (206L MID FWD)                                                                                                                                                                                                                                  | NTS          |
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|                             |                                         |                         |                                                 |  |                                |                           |              |
|-----------------------------|-----------------------------------------|-------------------------|-------------------------------------------------|--|--------------------------------|---------------------------|--------------|
| DRAWING NO.<br>D206-667-147 | TITLE<br>CROSSTUBE ASS'Y (206L MID FWD) | REV. A                  | <b>DART AEROSPACE LTD<br/>ENGINEERING ORDER</b> |  | D.E.O. NO.<br>D206-667-147-A-1 | SHEET NO.<br>SHEET 1 OF 1 | SCALE<br>NTS |
| DRAWN<br><i>qp</i>          | CHECKED<br><i>ADS</i>                   | MFG. APPR.<br><i>JS</i> | APPROVED<br><i>MD</i>                           |  | DE APPR.<br><i>MD</i>          |                           |              |
| DATE<br>11.07.15            | DATE<br>11.07.20                        | DATE<br>11.07.21        | DATE<br>11/07/21                                |  | DATE<br>11.07.21               |                           |              |

**PURPOSE:**

REPLACE MAGNOBOND WITH PROSEAL.

**CHANGE:**

**IS:**

| Item | Qty<br>-147 | Part Number     | Description                   |
|------|-------------|-----------------|-------------------------------|
| 9    | A/R         | PROSEAL 890 B-2 | SEALANT, AMS-S-8802 CLASS B-2 |

**WAS:**

|   |     |                |                                                                                                               |
|---|-----|----------------|---------------------------------------------------------------------------------------------------------------|
| 9 | A/R | MAGNOBOND 6398 | ROCKWELL SPECIFICATION RBO-120-023<br>ADHESIVE (TEXTRON/BELL SPEC. 299-947-100,<br>TYPE II, CLASS 2 ADHESIVE) |
|---|-----|----------------|---------------------------------------------------------------------------------------------------------------|

NOTE 12 & 15, SHEET 1 IS AMENDED AS FOLLOWS:

**IS:**

- 12) TO INSTALL D2891-1 SUPPORT: ABRABE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. **PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.**

**WAS:**

- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

**RELEASED**  
2011-07-28

|                             |                                         |                  |                                         |                                |                           |              |
|-----------------------------|-----------------------------------------|------------------|-----------------------------------------|--------------------------------|---------------------------|--------------|
| DRAWING NO.<br>D206-667-147 | TITLE<br>CROSSTUBE ASS'Y (206L MID FWD) | REV. A           | DART AEROSPACE LTD<br>ENGINEERING ORDER | D.E.O. NO.<br>D206-667-147-A-2 | SHEET NO.<br>SHEET 1 OF 1 | SCALE<br>NTS |
| DRAWN<br>AJS                | CHECKED                                 | MFG. APPR.       | APPROVED                                | DE APPR.                       |                           |              |
| DATE<br>12.08.02            | DATE<br>12.08.02                        | DATE<br>12.08.02 | DATE<br>12.08.02                        | DATE<br>12.08.02               | DATE<br>12.08.02          |              |

**PURPOSE:**

ADD ELECTRICAL GROUNDING STRAP

**CHANGE:**

**PARTS LIST:**

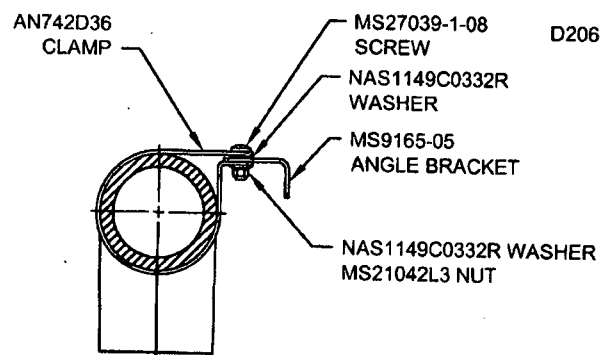
| ITEM | QTY<br>-147 | PART NUMBER   | DESCRIPTION                       |       |
|------|-------------|---------------|-----------------------------------|-------|
| 1    | X           | D206-667-147  | CROSSTUBE ASSEMBLY (206L MID FWD) |       |
| 10   | 2           | AN742D36      | CLAMP                             | ] ADD |
| 11   | 2           | MS9165-05     | ANGLE BRACKET                     |       |
| 12   | 2           | MS21042L3     | NUT (OR MS21042-3)                |       |
| 13   | 2           | MS27039-1-08  | SCREW                             |       |
| 14   | 4           | NAS1149C0332R | WASHER (OR AN960C10L)             |       |

**GENERAL NOTES:**

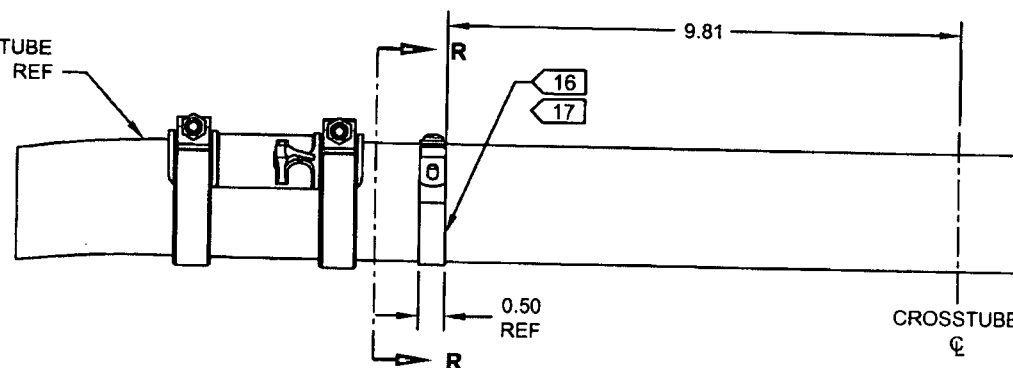
- 16) MASK AREA UNDER CLAMP PRIOR TO PAINTING  
 17) SEAL EDGES WHERE AN742D36 CLAMP MEETS WITH THE CROSSTUBE USING SIKAFLEX-241/-291 OR MIL-S-8802 CLASS B2 OR PROSEAL 890 SEALANT  
 18) PERFORM RESISTANCE CHECK TO ENSURE MAX RESISTANCE IS 10 MILLIOHMS

→ AFT

**RELEASED**  
 12.08.17  
 ECN 12-451



**SECTION R-R**



**DETAIL P**  
 BONDING STRAP INSTALLATION 2 PL